Annual Report on International Efforts to

Prohibit Military Small Arms

W. Hays Parks[1]

Before beginning a summary of the year's efforts, it is necessary to offer a "paid commercial" for the benefit of newcomers with respect to one aspect of my job. This concerns longstanding Department of Defense policy with respect to legal reviews of all new weapons, weapon systems and ammunition to ensure their compliance with the treaty obligations of the United States.

In 1974 the Department of Defense promulgated a policy and regulation that requires such a review.[2] It requires a legal review by the Judge Advocate General of the proponent department. I also perform this function for weapons developed and acquired by the U.S. Special Operations Command, if necessary in coordination with the Office of the Judge Advocate General of the Navy or Air Force if users include special operations forces (SOF) other than Army SOF.

The policy and directive was promulgated based upon our experience in the Vietnam War, where opponents of U.S. participation in that war alleged that many of its weapons – the 5.56x45mm M16 rifle, flechettes, napalm, cluster munitions – were illegal. A United Nations conference that met between 1978 and 1980 produced a convention that prohibited certain weapons while regulating others, while putting the lie to the allegations.[3] Since that time, our weapons review program has been beneficial in countering allegations made against other weapons, in addition to ensuring that the United States complies with its treaty obligations.

I reported last year on two efforts by the International Committee of the Red Cross (ICRC). Both proved unsuccessful, and since last year's meeting the ICRC quietly dropped each.

The first was its legal challenge to the Raufoss 12.7mm Multipurpose Round. The Mk 211, Mod O, caliber .50 cartridge is an armor-piercing incendiary round developed by the Norwegian company A/S Raufoss Ammunisjonsfabrikker, now

---

[1] Special Assistant to The Judge Advocate General of the Army, Washington, D.C. The following is based upon informal remarks offered at the National Defense Industrial Association Joint Services Small Arms Symposium, Little Rock, Arkansas, August 14, 2001. The author has served as a United States representative at each of the negotiations summarized herein. These remarks reflect the personal views of the author, and may not necessarily represent the policy of the Department of the Army or any other agency of the United States Government.

[2] Department of Defense Directive 5500.15 (16 October 1974). The current regulation is Department of Defense Instruction 5000.1 (23 October 2000).

[3] United Nations Convention on Prohibitions or Restrictions on the Use of Certain Conventional Weapons Which May be Deemed to be Excessively Injurious or to Have Indiscriminate Effects of 10 October 1980, generally referred to as the UNCCW.

Report Documentation Page

Report Date	Report Type	Dates Covered (from... to)
13Aug2001	N/A	-

Title and Subtitle Annual Report on International Efforts to Prohibit Military Small Arms	**Contract Number**
	Grant Number
	Program Element Number
Author(s) Parks, Hays W.	**Project Number**
	Task Number
	Work Unit Number
Performing Organization Name(s) and Address(es) Unknown	**Performing Organization Report Number**
Sponsoring/Monitoring Agency Name(s) and Address(es) NDIA (National Defense Industrial Association) 211 Wilson Blvd, STE. 400 Arlington, VA 22201-3061	**Sponsor/Monitor's Acronym(s)**
	Sponsor/Monitor's Report Number(s)

Distribution/Availability Statement
Approved for public release, distribution unlimited

Supplementary Notes
Proceedings from the 2001 Joint Services Small Arms Symposium, Exhibition & Firing Demonstration 13-16 August 2001 Sponsored by NDIA

Abstract

Subject Terms

Report Classification unclassified	**Classification of this page** unclassified
Classification of Abstract unclassified	**Limitation of Abstract** UU

Number of Pages
5

NAMMO. It was designed primarily to defeat materiel targets, such as helicopters, low-flying fixed-wing aircraft, armored personnel carriers and other soft-skinned military vehicles. Against materiel, the object of Raufoss was to maintain or exceed the armor penetration capability of the U.S. cal. .50 M8 Armor Piercing Incendiary (API) projectile while enhancing its blast and incendiary effects in materiel targets, to approach the performance of a 20mm projectile. Materials received from the developer of the cal. .50 Raufoss Multipurpose projectile confirmed that it is a dual-purpose (antimateriel and antipersonnel) munition, but intended predominately for anti-materiel purposes.

In 1998 the ICRC questioned its legality, incorrectly alleging that it was an "exploding antipersonnel [only] bullet." It invited experts from the four manufacturing nations – Norway, Belgium, Switzerland and the United States – to attend a meeting in Geneva. At that meeting, these experts challenged the basis for the ICRC claims, and flawed tests it conducted to support its claim. At the insistence of the manufacturing governments, a re-test was conducted. It refuted the ICRC claim. A U.S. legal review of this round prior to the ICRC challenge had found it consistent with U.S. international law obligations. That review was updated and, following thorough coordination with the offices of the Judge Advocates General of the Air Force and Navy, DOD General Counsel, and the Office of the Legal Adviser, Department of State, was signed, reconfirming the round's legality.[4] These reviews proved the value of the U.S. weapons review program, as they provided military, legal, historical and scientific bases for refuting the ICRC claims. This year, the ICRC dropped its objections.

During this same time, the ICRC also initiated its SIrUS Project. Named for the treaty provision that prohibits weapons calculated to cause "superfluous injury or unnecessary suffering,"[5] it sought to wrest responsibility for determination of the legality of weapons from governments. The SIrUS Project was strongly resisted by the United States and other governments, which found it outside the ICRC's mandate and, like its Raufoss challenge, militarily, legally, historically, scientifically and medically flawed. Following ICRC-hosted experts' meetings in May 1999 and January 2001 in which military, medical and legal experts roundly condemned SIrUS, the ICRC "reallocated its priorities" with respect to SIrUS, allowing it to die.

The third area in which there was action is the continuing Swiss initiative with respect to regulating or prohibiting certain types of military small arms ammunition. It is a subject on which I have reported previously, so it will not be belabored.[6]

---

[4] DAJA-IO Memorandum (14 January 2000), Subject: Mk211, MOD O, Cal. .50 Multipurpose Projectile; Legal Review.

[5] Article 23(e), Annex to the 1907 Hague Convention Respecting the Laws and Customs of War on Land (18 October 1907).

[6] See, for example, "Update on International Efforts to Restrict Efforts to Restrict or Prohibit Small Arms and Other Conventional Weapons," *Small Arms World Report* (1998), the 1998 report to this meeting.

While cloaked in humanitarian guise, Swiss interests long have been recognized as economic based rather than humanitarian. The Swiss Ministry of Defence completed its low-noise ballistics range at Thun just as the Cold War ended. End of the Soviet threat resulted in calls for a reduction of the Swiss military, and also coincided with a down turn in the Swiss economy. Faced with a base realignment and closing program similar to that being carried out in the United States, a search was made for ways to save the Thun facility. The way seized upon was to create a "new" problem relating to military small arms ammunition.

The legality of military small arms ammunition was given thorough consideration at the original (1978-1980) UNCCW meetings, where the wounding effects of the 5.56x45mm projectile were considered. Evidence presented at that conference, along with NATO's 1980 adoption of the 5.56x45mm round (SS-109) as a second rifle caliber, put to rest the challenges until the Swiss renewed them in 1995 at the first review conference for the UNCCW. The Swiss initiative received little to no support, and was withdrawn before the conference concluded.

In 1997, 1999 and 2001, the Swiss hosted wound ballistics workshops, attended by military, legal and medical experts (some more expert than others). Although they garnered little support, nonetheless the Government of Switzerland put forward a new proposal at this year's second UNCCW review conference, which will conclude in December. In simplest terms, its proposals are two: (a) to determine the legality of small arms ammunition by the distance a projectile travels in soft tissue before it yaws; and (b) to establish an "international testing facility" at Thun.

For several reasons, the United States has expressed its opposition to the Swiss small arms proposal:

- The Swiss argument focuses on bullet yaw. This is not a new phenomenon. The latest technologies and scientific advances, many of which were developed by Colonel Martin L. Fackler, MC, USA, (Ret.), including his wound ballistics methodology, establish that virtually every military rifle projectile used since 1899, whether Spitzer or round-nosed (such as the Italian Carcano), yaws in soft tissue depending on a variety of circumstances. Most will fragment at closer ranges. For example, the U.S. 5.56x45mm M193 and M855 (NATO SS-109) begin their yaw after traveling an average of eleven to twelve centimeters in soft tissue. Seventy per cent will yaw at twelve centimeters. Fifteen per cent will yaw sooner, while fifteen per cent will yaw later. The Swiss proposal makes undue use of variation in effect, incorrectly offering early yaw as the average and as the threshold for determining legality. Under the Swiss argument, the fifteen per cent that yaw early are presented as the norm, which they argue is illegal.[7] It is an arbitrary standard badly skewed and misrepresented to make their case to the less informed.

[7] While initially stating that their methodology would not ban any existing military projectile, Swiss papers suggest that the Russian 5.45x39mm AK-74 would be illegal. Swiss representatives also have informed the French that their 5.56x45mm most certainly would be banned. Questions offered at the 2001 wound ballistics workshop (using the Swiss criteria) cast in doubt personal defense weapons (PDW) such as

‣ The Swiss proposal errs by incorrectly offering *wounding potential* as *wounding effect* in all circumstances. The 1899 Hague Declaration prohibited a projectile designed to offer the same terminal ballistics (and commensurate wounds) at all ranges, wherever the bullet struck the human body. The typical hollow point rifle projectile (akin to the so-called 'dum-dum') nearly always starts expanding within one inch of the skin, at virtually all distances. This is not true of the full-metal jacketed rifle bullet. Modern military small arms ammunition *may* produce certain terminal ballistics at *closer* ranges, but *only* if the projectile travels sufficient distance in the human body. Every projectile fired is subject to myriad variants that may affect its terminal ballistics.

‣ The Swiss proposal incorrectly relies upon energy transfer and photographs or diagrams of the temporary wound cavity in glycerin soap to make its argument. This contrasts significantly with their normal wounding effect, which (according to a Swiss statement) produces "in tissue simulant *narrow* [permanent wound] channels…. [emphasis supplied]" The Swiss proposal is seriously flawed in its overemphasis on the temporary wound cavity.

‣ The Swiss proposal incorrectly isolates the wounding potential of small caliber projectiles from other, lawful battlefield wounding mechanisms. While this may be appropriate up to a point, the severity of injuries from small caliber projectiles is far more dependent on placement than other lawful wounding mechanisms.

The Swiss proposal is seriously flawed, and is not likely to succeed at this year's UNCCW Review Conference. I will provide a final report on this initiative at next year's National Defense Industrial Association Joint Services Small Arms Symposium.

In closing, let me reiterate the value of the DOD weapons review program. We can expect other challenges to other weapons, often times for political or economic rather than humanitarian reasons. Having a weapon review completed and on file is money in the bank. If you are a program manager or industry representative, understand that it is better to obtain this review sooner rather than later.

Thank you.

Fabrique Nationale's 5.7x28mm round, and Heckler & Koch's 4.6x30mm round, neither of which approaches the lethality of the 5.56x45mm NATO SS-109. For an assessment of the PDW, see Charles M. Hayes, "Personal Defense Weapons – Answer in Search of a Question?," *Wound Ballistic Review* 5,1 (Spring 2001), pp. 30-36.